

REMARKS

This Amendment is responsive to the Office Action mailed on April 21, 2005. Claims 1-40 are amended. Claims 41-54 have been withdrawn.

Claims 1-40 have been rejected as being indefinite. The claims are amended herein to overcome the indefiniteness rejection. Withdrawal of this rejection is respectfully requested.

Claims 1-18, 20, 22-34, 36, and 38 were rejected under 35 U.S.C. § 102(e) as being anticipated by Ni (US 2002/0122387).

Claims 21, 37, 39, and 40 were rejected under 35 U.S.C. § 103(a) as being obvious over Ni.

Applicants respectfully traverse these rejections in view of the amended claims and the following comments.

Discussion of Amended Claims

Claims 1-40 are amended herein to overcome the indefiniteness rejections and to more clearly define Applicants' invention.

Amended claim 1 now specifies a method for processing a plurality of digital streams, wherein each digital stream includes packets sequenced for continuous presentation. Packets for each of said plurality of digital streams are received. Each of the packets is associated with a respective stream of the plurality of digital streams. A priority is assigned to each packet. The priority is determined according to a delivery deadline for each of the packets. The packets from the plurality of data streams are then processed in order of their priority. Apparatus claim 22 is similarly amended.

Discussion of Ni

Claims 1-18, 20, 22-34, 36, and 38 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ni. This rejection is respectfully traversed. An anticipation rejection requires that each and every element of the claimed invention as set forth in the claim be provided in the cited

reference. See *Akamai Technologies Inc. v. Cable & Wireless Internet Services Inc.*, 68 USPQ2d 1186 (CA FC 2003), and cases cited therein. As discussed in detail below, Ni does not meet the requirements for an anticipation rejection.

Ni discloses a method for prioritizing packet flows within a switching network and is applicable to Internet Protocol (IP) based traffic. Packets are received at an input port and stamped with an arrival time. The packets are then classified into a flow. The flow is determined based upon a class of service of the packet. The packet is then assigned to a queuing ring according to its flow (Paras. 0002-0004, and 0007). Flow may also be determined based on the destination address for the packet. The class of service indicates whether the packet is a video, audio, or best effort packet, and may specify other characteristics of the packet, such as the jitter, latency, bandwidth, and packet loss rate requirement (para. 0019). Video and audio packets are generally given priority over best effort packets (para. 0020).

Ni does not disclose or remotely suggest assigning a priority to each packet of a digital data stream, where the priority is determined according to a delivery deadline for each of said packets, as claimed by Applicants. Rather, Ni discloses classifying packets into flows, wherein a flow is based on the class of service of the packet. In Ni, the class of service designates whether the packet is a video, audio or best effort packet (Para. 0019). Classifying a packet based on whether it is a video, audio, or best effort packet as disclosed in Ni is far removed from prioritizing a packet based on a delivery deadline for the packet, as claimed by Applicants.

In rejecting claims 7, 8, 27, and 28, the Examiner indicates that Ni discloses that a packet is transmitted within a selected time interval and that a time stamp is added to each packet. The Examiner therefore concludes that Ni discloses that the priority of the stream is based on a deadline (Office Action, page 5). Applicants respectfully submit that although the transmitting of a packet within a selected time interval from receipt of the packet, as disclosed in Ni, may be broadly interpreted as a “deadline”, such an artificially assigned time interval is not a delivery deadline for a packet as claimed by Applicants. Rather, such a time interval may be considered to establish a transmission deadline for the packet through the switch. There is nothing in Ni that

suggests that such a time interval relates to a delivery deadline for the packet, as claimed by Applicants.

Further, a time stamp added to a packet on receipt by the switch as in Ni is not equivalent to a decoding time stamp already present in a packet header associated with the packet as set forth in Applicants' claims 8 and 28. The decoding time stamp indicates a time by which the packet must be decoded at the receiver in order to avoid an interruption in presenting the video and/or audio carried in the digital stream. In contrast, the time stamp added by the device in Ni is an artificial mechanism used to accommodate the addition of new flows and maintain a proportional mixture of best effort packets through the switch (otherwise, in the system of Ni, the best effort packets would only be sent when there are no video or audio packets present in the queuing ring) (paras. 0020 and 0028).

Further, Ni does not disclose or remotely suggest processing the packets from the plurality of data streams in order of priority. Rather, in Ni the packets are merely transmitted based on the assigned flow, which can be altered depending on the time period the packet is present in the queuing ring. In fact, Ni does not disclose any processing of the packets based on their priority, only transmitting of packets through a switch based on class of service.

Ni is applicable to routing various types of Internet Protocol traffic through a switching mechanism in a network. In contrast, the present invention is applicable to time-multiplexed processing of multiple digital video programs. Ni is far removed from Applicants' claimed invention. For example, no processing takes place in the switching mechanism of Ni. The CPU 115 of Ni is used to control the routing of the packets through the network, but does not process packets of multiple digital video programs. Applicants' invention solves various problems associated with processing of multiple digital video streams using a single processor (see, e.g., Applicants' specification, page 2, paras. 6-7). Such problems cannot be solved using the disclosure of Ni, which merely relates to a packet switching protocol for network packet routing.

As Ni does not disclose each and every element of the invention as claimed, the rejections under 35 U.S.C. § 102(e) are believed to be improper, and withdrawal of the rejections is respectfully requested. See, *Akamai Technologies Inc., supra*.

Applicants respectfully submit that the present invention is not anticipated by and would not have been obvious to one skilled in the art in view of Ni, taken alone or in combination with any of the other prior art of record.

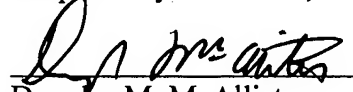
Further remarks regarding the asserted relationship between Applicant's claims and the prior art are not deemed necessary, in view of the amended claims and the foregoing discussion. Applicants' silence as to any of the Examiner's comments is not indicative of an acquiescence to the stated grounds of rejection.

Withdrawal of the rejections under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) is therefore respectfully requested.

Conclusion

The Examiner is respectfully requested to reconsider this application, allow each of the pending claims and to pass this application on to an early issue. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,



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